

Please amend the claims as follows:

1-58. (Cancelled)

59. (Currently amended) A method for determining the concentration of a ~~first, medically significant component of a biological fluid~~ glucose in blood, a blood fraction or a control, the ~~biological fluid~~ blood, a blood fraction or control including a ~~second component~~ red blood cells or red blood cell fractions which ~~affects~~ affect the determination of the concentration of the ~~first component~~ glucose, the method including performing a first measurement on the ~~biological fluid~~ blood, a blood fraction or control which first measurement varies with both the concentration of the ~~first component~~ glucose and at least one of the presence and concentration of the ~~second component~~ red blood cells or red blood cell fractions, which first measurement comprises a measurement of a time-varying function $i_1(t)$ having the general form

$$i_1(t) = M/\text{sqrt}(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large, performing a second measurement on the ~~biological fluid~~ blood, a blood fraction or control which second measurement has the form of a time-varying function $i_2(t)$, where t is time, $t < \text{some arbitrarily established time}$, $i_2(t)$ varying primarily only with the at least one of the presence and concentration of the ~~second component~~ red blood cells or red blood cell fractions to develop an indication of the at least one of the presence and concentration of the ~~second component~~ red blood cells or red blood cell fractions, and removing an amount representative of the indicated presence or concentration of the ~~second component~~ red blood cells or red blood cell fractions from the concentration of the ~~first component~~ glucose indicated by the first measurement.

60-63. (Cancelled)

64. (Currently amended) The method of claim ~~63~~ 59 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

65. (Currently amended) The method of claim 59 further including contacting the ~~biological fluid~~ blood, blood fraction or control with a reactant before performing the first measurement.

66-68. (Cancelled)

69. (Currently amended) The method of claim ~~68~~ 65 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

70. (Previously presented) The method of claim 69 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

71. (Currently amended) The method of claim 65 wherein the first and second measurements exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

72-74. (Cancelled)

75. (Currently amended) The method of claim ~~74~~ 71 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

76. (Previously presented) The method of claim 75 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

77. (Currently amended) The method of claim 59 wherein the first and second measurements exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

78-80. (Cancelled)

81. (Currently amended) The method of claim ~~80~~ 77 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

82. (Previously presented) The method of claim 81 wherein the first measurement is of a hematocrit-sensitive measure of the glucose concentration.

83. (Cancelled)

84. (Currently amended) Apparatus for determining the concentration of a ~~first, medically significant component of a biological fluid~~ glucose in blood, a blood fraction or a control, the ~~biological fluid~~ blood, a blood fraction or control including a ~~second component~~ red blood cells or red blood cell fractions which affects the determination of the concentration of ~~the first component~~ glucose, the apparatus including a device for performing a first measurement on the ~~biological fluid~~ blood, blood fraction or control which first measurement varies with both the concentration of ~~the first component~~ glucose and at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, the device performing measurements of a time-varying function $i_1(t)$ having the general form

$$i_1(t) = M/\text{sqrt}(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and

B is a value the function approaches as t becomes very large, the device further being for performing a second measurement of a time-varying function $i_2(t)$ of the ~~biological fluid~~ blood, a blood fraction or control, where t is time, $t <$ some arbitrarily established time, which second measurement varies primarily only with the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions to develop an indication of the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, the device further being for removing an amount representative of the indicated presence or concentration of ~~the second component~~ red blood cells or red blood cell fractions from the concentration of ~~the first component~~ glucose indicated by the first measurement.

85. (Cancelled)

86. (Currently amended) The apparatus of claim 85 ~~84~~, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

87. (Previously presented) The apparatus of claim 86, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

88. (Previously presented) The apparatus of claim 87, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

89. (Previously presented) The apparatus of claim 88, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

90. (Previously presented) The apparatus of claim 84 further including a reactant for contacting the biological fluid or control before performing the first measurement.

91. (Cancelled)

92. (Currently amended) The apparatus of claim 91 ~~90~~, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

93. (Previously presented) The apparatus of claim 92, the device

being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

94. (Previously presented) The apparatus of claim 93, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

95. (Previously presented) The apparatus of claim 94, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

96. (Currently amended) The apparatus of claim 90, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

97. (Cancelled)

98. (Currently amended) The apparatus of claim ~~97~~ 96, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

99. (Previously presented) The apparatus of claim 98, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

100. (Previously presented) The apparatus of claim 99, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

101. (Previously presented) The apparatus of claim 100, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

102. (Currently amended) The apparatus of claim 84, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

103. (Cancelled)

104. (Currently amended) The apparatus of claim ~~103~~ 102, the device

being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

105. (Previously presented) The apparatus of claim 104, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

106. (Previously presented) The apparatus of claim 105, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

107. (Previously presented) The apparatus of claim 106, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

108. (Cancelled)

109. (Currently amended) A method for determining the concentration of a ~~first, medically significant component of a biological fluid~~ glucose in blood, a blood fraction or a control, the ~~biological fluid~~ blood, blood fraction or control including a ~~second component~~ red blood cells or red blood cell fractions which ~~affects~~ affect the determination of the concentration of ~~the first component~~ glucose, the method including performing a first measurement of a time-varying function $i_1(t)$ of the ~~biological fluid~~ blood, blood fraction or control, $i_1(t)$ varying with both the concentration of ~~the first component~~ glucose and at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, $i_1(t)$ having the general form

$$i_1(t) = M/\text{sqrt}(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large, performing a second measurement on the ~~biological fluid~~ blood, blood fraction or control which second measurement also varies with the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions to develop an indication of the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, and removing an amount representative of the indicated presence or concentration of ~~the second component~~ red blood cells or red blood cell fractions from the concentration of ~~the first component~~ glucose indicated by the first measurement.

110-112. (Cancelled)

113. (Currently amended) The method of claim ~~112~~ 109 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

114. (Previously presented) The method of claim 113 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

115. (Currently amended) The method of claim 109 further including contacting the ~~biological fluid~~ blood, blood fraction or control with a reactant before performing the first measurement.

116-118. (Cancelled)

119. (Currently amended) The method of claim ~~118~~ 115 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

120. (Previously presented) The method of claim 119 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

121. (Currently amended) The method of claim 115 wherein the first and second measurements exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

122-124. (Cancelled)

125. (Currently amended) The method of claim ~~124~~ 121 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

126. (Previously presented) The method of claim 125 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

127. (Currently amended) The method of claim 109 wherein the first and second measurements exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

128-130. (Cancelled)

131. (Currently amended) The method of claim ~~130~~ 127 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

132. (Previously presented) The method of claim 131 wherein the first measurement is of a hematocrit-sensitive measure of the glucose concentration.

133. (Currently amended) Apparatus for determining the concentration of a ~~first, medically significant component of a biological fluid~~ glucose in blood, a blood fraction or a control, the ~~biological fluid~~ blood, a blood fraction or control including a ~~second~~

~~component~~ red blood cells or red blood cell fractions which ~~affects~~ affect the determination of the concentration of ~~the first component~~ glucose, the apparatus including a device for performing a first measurement of a time-varying function $i_1(t)$ of the ~~biological fluid~~ blood, a blood fraction or control, $i_1(t)$ varying with both the concentration of ~~the first component~~ glucose and at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, $i_1(t)$ having the general form

$$i_1(t) = M/\sqrt{t} + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large, the device also being a device for performing a second measurement on the ~~biological fluid~~ blood, a blood fraction or control which second measurement varies primarily only with the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions to develop an indication of the at least one of the presence and concentration of ~~the second component~~ red blood cells or red blood cell fractions, and the device also being a device for removing an amount representative of the indicated presence or concentration of ~~the second component~~ red blood cells or red blood cell fractions from the concentration of ~~the first component~~ glucose indicated by the first measurement.

134. (Cancelled)

135. (Currently amended) The apparatus of claim ~~134~~ 133, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

136. (Previously presented) The apparatus of claim 135, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

137. (Previously presented) The apparatus of claim 136, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

138. (Previously presented) The apparatus of claim 137, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

139. (Currently amended) The apparatus of claim 133 further including a reactant for contacting the ~~biological fluid~~ blood, a blood fraction or control before performing the first measurement.

140. (Cancelled)

141. (Currently amended) The apparatus of claim ~~140~~ 139, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

142. (Previously presented) The apparatus of claim 141, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

143. (Previously presented) The apparatus of claim 142, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

144. (Previously presented) The apparatus of claim 143, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

145. (Currently amended) The apparatus of claim 139, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

146. (Cancelled)

147. (Currently amended) The apparatus of claim ~~146~~ 145, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of ~~blood cells~~ red blood cells or red blood cell fractions in blood, a blood fraction or a control.

148. (Currently amended) The apparatus of claim 147, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of ~~blood cells~~ red blood cells or red blood cell fractions in the blood, blood fraction or control.

149. (Previously presented) The apparatus of claim 148, the device being a device for performing the second measurement of a largely glucose-insensitive

measure of hematocrit.

150. (Previously presented) The apparatus of claim 149, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

151. (Currently amended) The apparatus of claim 133, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of ~~the first component~~ glucose and the concentration of ~~the second component~~ red blood cells or red blood cell fractions.

152. (Cancelled)

153. (Currently amended) The apparatus of claim ~~152~~ 151, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of ~~blood cells~~ red blood cells or red blood cell fractions in blood, a blood fraction or a control.

154. (Currently amended) The apparatus of claim 153, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of ~~blood cells~~ red blood cells or red blood cell fractions in the blood, blood fraction or control.

155. (Previously presented) The apparatus of claim 154, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

156. (Previously presented) The apparatus of claim 155, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.